

The Effect of Fraternity Moratoriums on Alcohol Offenses and Sexual Assaults

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Online Appendix

A Details on Data Collection

In this appendix, I cover minute details of the data collection. First, a list of universities that underwent moratoriums but are not included in the sample are explained. Second, the small portion of missing data in the Daily Crime Logs is discussed.

A Sample Selection Details

Recall from Section 3.A that the main sample includes 37 universities which experienced moratoriums between 2014 and 2019. However, these do not represent the universe of fraternity moratoriums that occur in this time period. In particular, there are six schools that are known to have experienced a moratorium in this time frame, but are excluded due to data issues or their definition of a moratorium. First, Miami University is excluded since the end-date of their moratorium could not be verified. Second, Pennsylvania State University is excluded because they did not digitally release their Daily Crime Logs. Third, the University of Texas at Arlington is excluded because the crime logs are scanned images that cannot be read reliably by any computer software. Fourth, Cal State Northridge is excluded because it is unclear whether the moratorium includes a ban on alcohol. Fifth, the University of North Florida is excluded because of a discrepancy between public records information and newspaper articles—newspaper articles claim there is a moratorium beginning 12/4/17, but the public records department claims this is untrue. Last, the University of Vermont is excluded due to issues with the reliability of the data—crimes often are reported to have occurred in large intervals of days (or months) for nearly 40% of the data provided which is not suitable for the daily-level analysis in this paper. There may exist other universities that experienced a moratorium without news coverage—these are also excluded from the sample.

B Daily Crime Log Details

As outlined in Section 3.A, the Daily Crime Logs are mandated under the Clery Act to include a set of characteristics for each crime and to be maintained for seven years. Despite these mandates,

there are exceptions to each of these. First, while the date occurred is mandated to be included in the Daily Crime Logs, only 32 of the 37 universities' crime logs contain the date occurred. However, these five schools contain the date reported, and therefore, I use the date reported in lieu of the date occurred when the date occurred is missing. Second, the seven-year record mandate is not interpreted uniformly across universities. In particular, if Daily Crime Logs from 2014 are requested in year 2021, the police departments of Rollins College and North Carolina State University consider seven-years to be inclusive of their current year, and hence, only retain records from 2015-2021 or have only partially completed records in 2014 respectively.

B Robustness Under TWFE

In this appendix, I estimate a model that contains no negative weights to acknowledge the potential issues with the difference-in-differences estimator as discussed in Section 4.C. These weights are calculated using the TwoWayFEWeights package (Chaisemartin, D’Haultfoeuille, and Deeb 2020). The estimated model is the following two-way fixed effects (TWFE) specification:

$$Y_{ut} = \beta \text{Moratorium}_{ut} + \gamma_u + \alpha_t + \epsilon_{ut}$$

where Y_{ut} is the outcome for university u at time t measured by per-25000 enrolled students per academic-calendar day, Moratorium_{ut} is an indicator equal to one if university u is in a moratorium at time t , γ_u are university fixed effects, α_t are day by month by year fixed effects, and ϵ_{ut} is the error term. Hence, this model compares academic-calendar days within a moratorium to the same calendar days without a moratorium while controlling for systematic differences between universities. As mentioned above, there are no negative weights in this specification and therefore sign reversal is impossible. With this advantage, I re-estimate the results in Columns 2, 3, and 5 in Table 4.

Table B1 shows that the results of the TWFE specification with no negative weights are mostly consistent with the results in Table 4. In Panel A, alcohol offenses exhibit a 19% decrease from the mean during a moratorium, with a 25% decrease on the weekends. Although sexual assaults do not exhibit statistically significant decreases on the weekends, this is potentially due to the loss of identifying variation from the data-intensive controls. However, it is important to note that the coefficient sign remains the same on all of the estimates. Hence, under the identifying assumptions of the model, moratoriums decrease alcohol offenses.

Table B1: Effect of Moratoriums on Alcohol Offenses and Sexual Assault by Weekend/Weekdays (No Negative Weights-OLS)

	Days of the Week		
	All Days (1)	Weekends (2)	Weekdays (3)
<i>Panel A: Alcohol Offenses</i>			
In Moratorium	-0.091* (0.045)	-0.211** (0.097)	-0.004 (0.017)
Observations	55115	23643	31472
Mean of Dependent Variable	0.464	0.828	0.190
<i>Panel B: Sexual Assaults</i>			
In Moratorium	-0.006 (0.005)	-0.008 (0.007)	-0.004 (0.007)
Observations	55115	23643	31472
Mean of Dependent Variable	0.049	0.058	0.042
FE: University	X	X	X
FE: Day by Month by Year	X	X	X

Note:

Standard errors are clustered by university and each offense is defined as per-25000 enrolled students. Column 1 represents the preferred specification from the main results table, Column 2. Weekends consist of Fridays, Saturdays, and Sundays. Weekdays consist of Monday through Thursday. The specification used in this table has no negative weights and thus, sign reversal is ruled out.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

C Spillover Analysis Using CSS Data

In this appendix, I use the Campus Safety and Security (CSS) data to indirectly analyze whether alcohol offenses and sexual assaults are being displaced to riskier areas during a moratorium. I compare the yearly aggregation of the Daily Crime Logs to the CSS data using a model that is less suited for a causal analysis due to the yearly aggregation of the CSS data. Therefore, the estimates in this appendix should be taken as speculative only.

A CSS Data and Empirical Strategy

The CSS data is maintained by the US Department of Education. This data is mandated by the federal government to be updated each calendar year with the yearly totals of liquor law disciplinary actions and arrests, and sexual assault violations that are reported *to any entity* at a university. Hence, this data will not match one-to-one with the Daily Crime Logs as the Daily Crime Logs contain only incidents *reported to or by the university police*. For instance, if a residence hall administrator issues a liquor violation to an underage student, but handles the issue internally without involving the police, then this would be included in the CSS data as a liquor law disciplinary action, but not the Daily Crime Logs. However, the advantage of the CSS data is that it contains counts of offenses that occur on-campus, not-on-campus, and on public property.¹ Most importantly, I am able to delineate whether incidents occur in student residence halls.

Since the CSS data is aggregated by calendar-year, the CSS data is not a preferred data source for causal analysis. In spite of this shortcoming, I estimate the following difference-in-differences specification:

$$Y_{u,t} = \beta \text{Moratorium}_{u,t} + \gamma_u + \lambda_t + \epsilon_{u,t} \quad (\text{C0})$$

¹Not-on-campus is defined by the Department of Education as “(1) Any building or property owned or controlled by a student organization that is officially recognized by the institution; or (2) Any building or property owned or controlled by an institution that is used in direct support of, or in relation to, the institution’s educational purposes, is frequently used by students, and is not within the same reasonably contiguous geographic area of the institution.” Furthermore, public property is defined as “All public property, including thoroughfares, streets, sidewalks, and parking facilities, that is within the campus, or immediately adjacent to and accessible from the campus.”

where $Y_{u,t}$ is the offense of interest defined as per-25000 enrolled students per-calendar-year, $Moratorium_{u,t}$ is the *number* of calendar-days with a moratorium within a year, γ_u are university fixed effects, λ_t are calendar-year fixed effects, and $\epsilon_{u,t}$ is the error term. Standard errors are clustered at the university level to account for serial correlation within universities.

B Results

Table C1 shows the comparison of estimating Equation C0 with the Daily Crime Logs aggregated to the calendar-year level with the CSS data.² The Daily Crime Logs show relatively consistent results with those found in Table 4; yearly averages of alcohol offenses per-25,000 enrolled students decrease by approximately 0.134 per additional calendar day with a moratorium and sexual assaults decrease by approximately 0.013.

Although the results using aggregated Daily Crime Logs are consistent with the findings in Table 4, the CSS data shows that residence halls experience a 0.270 *increase* in yearly liquor law disciplinary violations per-25,000 enrolled students and a 0.033 *decrease* in reports of sexual assault for each additional calendar-year-day with a moratorium (Column 3). Each of these estimates are significant at the 5% level. However, there is little evidence of an effect on liquor law arrests as shown in Columns 4 and 5—consistent with the literature that campus police do not typically arrest students for alcohol violations (Bernat et al. 2014). As discussed in Section 5.B, this supports the notion that if moratoriums displace alcohol-fueled behavior, they displace it to *less* risky areas whereby behavior can more easily be intervened before it becomes dangerous.

²This aggregation includes all calendar-year days rather than only academic-calendar days that were used in the main analysis.

Table C1: Effect of Moratoriums on Alcohol Offenses and Sexual Assaults: Comparison of Daily Crime Logs and Campus Safety and Security (OLS)

	Campus Safety and Security				
	Daily Crime Logs	Disiplinary Actions/Reported Crime		Arrests	
	All Reports	All Reports	Residence Halls	All Reports	Residence Halls
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Alcohol Offenses</i>					
In Moratorium	-0.134* (0.077)	0.297** (0.118)	0.270** (0.125)	-0.022 (0.056)	-0.025 (0.040)
Mean of Dependent Variable	131.861	362.978	343.616	55.961	24.280
Observations	220	222	222	222	222
FE: Year	X	X	X	X	X
FE: University	X	X	X	X	X
<i>Panel B: Sexual Assaults</i>					
In Moratorium	-0.013 (0.011)	-0.046 (0.039)	-0.033** (0.014)		
Mean of Dependent Variable	14.099	28.732	14.444		
Observations	220	222	222		
FE: Year	X	X	X		
FE: University	X	X	X		

Note:

Standard errors are clustered by university and each offense is defined as offense per-25000 enrolled students per-calendar year. Recall that Daily Crime Logs are the primary source of data used in prior analysis. In this model, the In Moratorium treatment variable is defined as the number of calendar-days that experienced a moratorium in a calendar-year. All Reports columns include the entire Daily Crime Logs/Campus Safety and Security Data (CSS), while Residence Halls is a subset of the CSS. All Reports in the CSS data contains both off-campus and on-campus reports. CSS data does not necessarily need to be reported to the university police and hence, may not show up in the Daily Crime Logs. Columns 2 and 3 refer to disciplinary actions for liquor law violations and reported crime for sexual assaults. Columns 4 and 5 refer to arrests for liquor law violations. Fixed effects include university and year fixed effects.

* p < 0.1, ** p < 0.05, *** p < 0.01

D Is the Share of Students in a Fraternity Important for Effectiveness?

In this appendix, I analyze whether universities with a higher fraction of undergraduates belonging to IFC fraternities exhibit larger effects during a moratorium. Each university in the sample has a different share of its student population belonging to IFC fraternities. Recall from Table 2 that the fraction of undergraduate students with IFC membership can range from 1% to as high as 11%. Presumably, a moratorium has a greater effect on student behavior when the restrictions apply to a greater share of students.

To conduct this analysis, I supplement the preferred specification with an interaction of $InMoratorium_{u,t}$ and $FractionIFC_u$, where $FractionIFC_u$ is the earliest recorded count of IFC fraternity members over 2014-2019 at university u , divided by the undergraduate enrollment, and centered at its mean. I use the earliest count of IFC members for two reasons; first, to avoid the potential issue of declines in IFC membership after a moratorium due to permanent suspensions of specific IFC chapters, and second, many universities do not maintain records of IFC numbers for every year in the sample period. However, in the universities that do supply complete records, I do not find substantial semester-to-semester changes in IFC populations.³ Therefore, an early one-year measure of the IFC population is a good approximation for the other corresponding years. In effect, the interaction of $InMoratorium_{u,t}$ and $FractionIFC_u$ creates a measure of moratorium intensity—universities with a higher fraction of IFC members receive a more intense treatment than universities with lower shares.

Table D1 provides suggestive evidence that moratoriums with a higher fraction of student enrollment belonging to an IFC fraternity result in larger decreases in alcohol offenses and sexual assaults during a moratorium period. In Panel A, the point estimates for the interaction term show patterns consistent with the main findings in the paper—the effects are negative with the strongest effects are observed on the weekends when partying is more frequent. Similarly, in Column 1 of

³West Virginia University is an exception to this. Their official IFC count decreased by over 60 percent in years following the moratorium.

Panel B, the interaction term coefficient shows suggestive evidence that moratoriums in universities with a higher share of IFC members exhibit larger decreases of sexual assaults. However, none of the interaction coefficients presented in either panel are significant, indicating only a suggestive relationship between the share of IFC members and the impact of moratoriums.

The results of Table D1 may appear surprisingly inconclusive given the expectation that universities with a higher share of fraternity members exhibit larger effects. One possible reason for these inconclusive results is that the share of fraternity members is a noisy indicator for a fraternity-related activity—schools with a small share of fraternity life may have chapters that are particularly active, or vice-versa. To demonstrate this, I plot each university’s undergraduate IFC fraction against its Niche.com Colleges with the Best Greek Life ranking. The ranking, based on survey responses from Niche.com users, ranges from 1-300, and 32 out of the 37 universities in the sample are ranked in the top 300. For the remaining five schools, I assign a ranking between 301-305. Figure D1 shows the inverse relationship between these two measures: as the Greek Life ranking increases, the fraction of undergraduates in an IFC fraternity generally decreases. This likely contributes to the negative point estimates in the previous analysis. However, this relationship is noisy, and the slope is not statistically different from zero at the 5% level. This may explain why the previous analysis only provided suggestive rather than clear evidence.

Table D1: The Effect of Moratoriums Interacted with the Centered IFC Share (OLS)

	All Days	Weekends	Weekdays
	(1)	(2)	(3)
<i>Panel A: Alcohol Offenses</i>			
In Moratorium	-0.124** (0.051)	-0.239** (0.107)	-0.038 (0.026)
In Moratorium x Fraction IFC	-0.231 (1.402)	-0.729 (2.629)	-0.209 (0.733)
Mean of Dependent Variable	0.464	0.828	0.190
Observations	55115	23643	31472
<i>Panel B: Sexual Assaults</i>			
In Moratorium	-0.010 (0.007)	-0.017 (0.010)	-0.004 (0.006)
In Moratorium x Fraction IFC	-0.068 (0.235)	0.164 (0.304)	-0.242 (0.234)
Mean of Dependent Variable	0.049	0.058	0.042
Observations	55115	23643	31472
FE: Day of Week	X	X	X
FE: Holiday	X	X	X
FE: Game Day	X	X	X
FE: Semester (Spring/Fall)	X	X	X
FE: University by Academic Year	X	X	X

Note:

Fraction IFC is the average share of undergraduates that are in an IFC fraternity, centered at the mean. Note that not every university keeps record of their IFC numbers over time, and therefore, the most recent number of IFC members is used in this calculation when sample-period data is missing. However, based on the few universities that provided year-to-year data on their IFC populations, the total number does not substantially change over time. Standard errors shown in parenthesis are clustered by university (37 clusters) and each offense is defined as per-25000 enrolled students. The interaction of In Moratorium and Fraction IFC gives a measure of moratorium intensity based on the fraction of IFC members. The regression specification is the preferred specification which includes day of week, holiday, football game-day, semester, and university-by-academic-year fixed effects.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

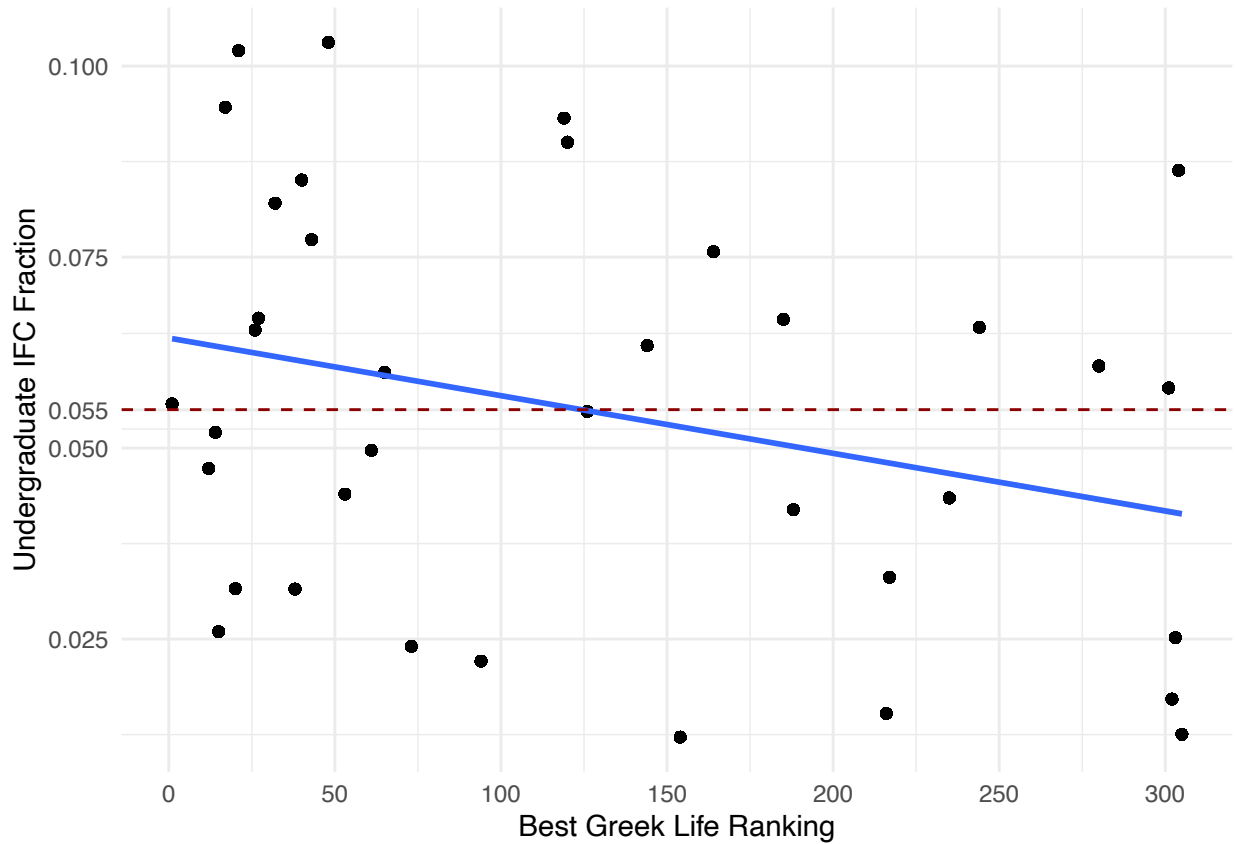


Figure D1: Scatterplot of Best Greek Life Ranking and IFC Fraction

Note: The x-axis represents the ranking from Niche.com’s Colleges with the Best Greek Life list. There are 300 rankings within this list. Of the four universities that are not ranked, a ranking between 301 and 305 is assigned. The y-axis represents the share of undergraduate students that are a member of an IFC fraternity. The dashed red line denotes the average share of undergraduate students that are in an IFC fraternity, while the blue line represents the regression estimation of the share of undergraduate students on the Colleges with the Best Greek Life ranking. Note that, at the five percent level, the slope of the regression line is not statistically different from zero.

E Appendix Figures and Tables

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Indiana University, Bloomington
Police Department
Student Right To Know CAD Daily Log
From Jan 20, 2014 to Jan 20, 2014.

Date Reported: 01/20/14 - MON at 12:22	Location : EIGENMANN HALL	Event #: 14-01-20-001434
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 17:03	Location : ALL OTHER ROADWAYS/INTERS	Event #: 14-01-20-001446
Date and Time Occurred From - Occurred To 01/20/14 - MON at 17:02 - 01/20/14 - MON at 17:03		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: CLOSED BY ARREST		
Date Reported: 01/20/14 - MON at 19:30	Location : EIGENMANN HALL	Event #: 14-01-20-001464
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 20:22	Location : EIGENMANN HALL	Event #: 14-01-20-001466
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 20:45	Location : FOSTER HARPER HALL	Event #: 14-01-20-001468
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 21:38	Location : ALL OTHER NON-UNIVERSITY	Event #: 14-01-20-001476
Date and Time Occurred From - Occurred To		
Incident : ALL OTHER OFFENSES - HARASSMENT/INTIMIDATION		
Disposition: NO CASE REPORT		
Date Reported: 01/20/14 - MON at 21:53	Location : ROSE AVE RESIDENCE HALL	Event #: 14-01-20-001479
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 22:30	Location : COLLINS COMMON AREA	Event #: 14-01-20-001486
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 23:02	Location : FOREST QUAD	Event #: 14-01-20-001487
Date and Time Occurred From - Occurred To 01/20/14 - MON at 22:45 - 01/20/14 - MON at 23:02		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: CLOSED NO ARREST.		
Date Reported: 01/20/14 - MON at 23:07	Location : FOSTER JENKINSON HALL	Event #: 14-01-20-001491
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 23:35	Location : ALL OTHER OPEN AREAS	Event #: 14-01-20-001494
Date and Time Occurred From - Occurred To 01/20/14 - MON at 23:35 - 01/20/14 - MON at 23:41		
Incident : ASSAULT - OTHER ASSAULTS - SIMPLE, NOT AGGRAVATED		
Disposition: CLOSED BY ARREST.		

11 Incidents Listed.

Figure E1: An Example of a Daily Crime Log

Note: The main analysis uses data from 37 universities' Daily Crime Logs—each unique in their own respect. All Daily Crime Logs are collected from each university and harmonized using the pattern matching technique outlined in Section 3.B.

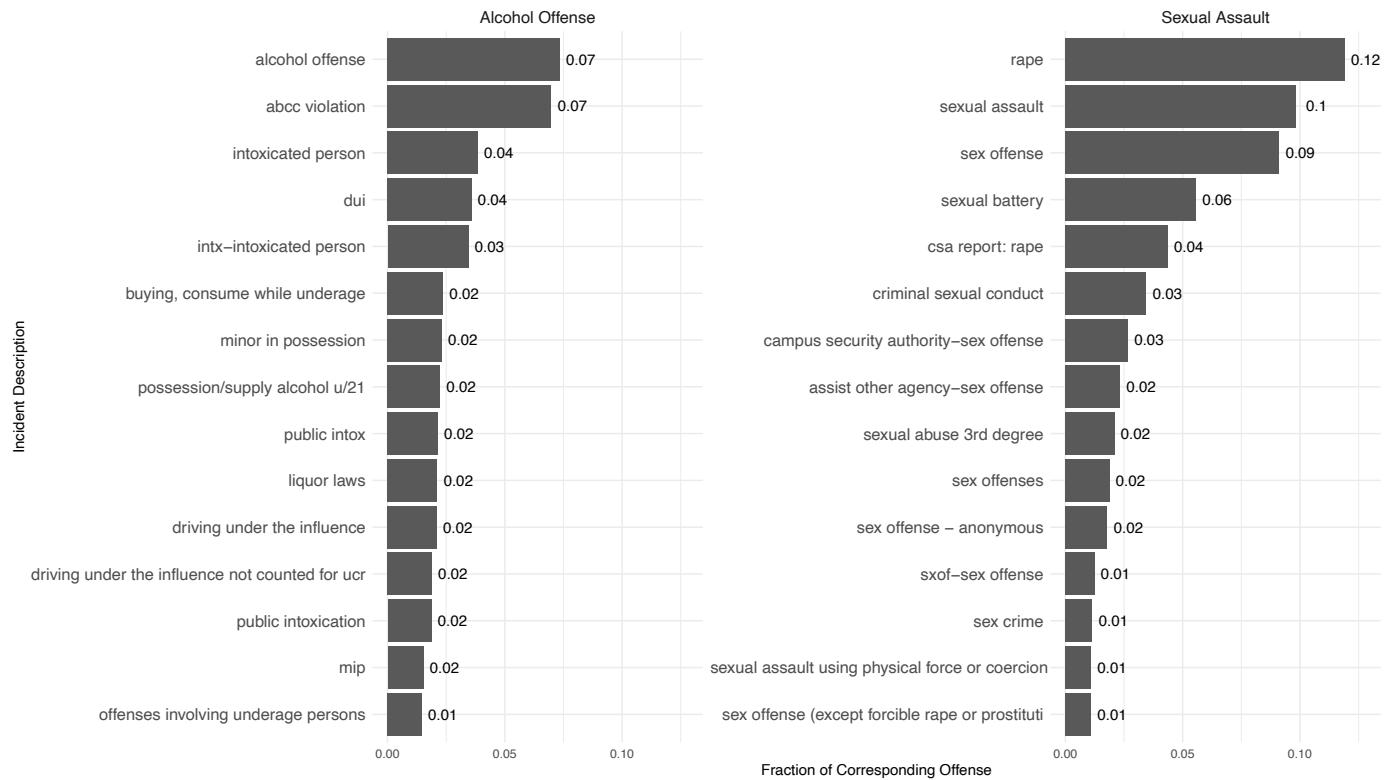


Figure E2: Top 15 Most Frequent Offense Matches

Note: The top 15 most frequent offense matches represent the 15 most frequent incidents after the pattern matching process. The x-axis represents the fraction of the total number of offenses in each category.

Table E1: Description of the Triggering Events that lead to a Moratorium

University	Description of Triggering Event	Triggering Event Date	Moratorium Start Date	Classification
Arkansas State University-Main Campus	Arrest of a man suspected of raping a 19-year old woman at a party in a fraternity house.	2017-02-10	2017-02-21	Sexual Assault
Ball State University	Concerns regarding the behavior and actions of members of IFC fraternities.		2017-10-24	Behavior
Cal Poly San Luis Obispo	A report of a sexual assault that allegedly took place at a social event hosted by a Greek group.		2015-01-13	Sexual Assault
Cal Poly San Luis Obispo	Racially insensitive photos surfacing on social media featuring fraternity members in both blackface and gang-related images.	2018-04-08	2018-04-17	Behavior
Clemson University	Alleged sexual assault.	2018-01-27	2018-01-29	Sexual Assault
College of Charleston	Decision was made after consulting with student leaders within the community.		2016-08-30	Unspecified
East Carolina University	An alleged sexual assault on Jan. 25 that provoked an ongoing investigation with the Greenville Police Department.	2015-01-25	2015-01-28	Sexual Assault
Emory University	Report of a sexual assault in a fraternity house.	2014-11-02	2014-11-03	Sexual Assault
Florida Atlantic University	Tailgating issues involving alcohol.		2017-11-28	Behavior
Florida International University	Growing concerns about the state of fraternity and sorority life at FIU as well as around the nation.		2018-01-01	Unspecified
Florida State University	Death of Andrew Coffey.	2017-11-03	2017-11-06	Death
Indiana University-Bloomington	A university spokesperson said the decision came in light of the ongoing national conversation about Greek life and its place on college campuses, as well as challenges on IU's Bloomington campus. The decision is not attributable to one particular incident.		2017-11-27	Unspecified
Louisiana State University	Death of Maxwell Gruver.	2017-09-14	2017-09-14	Death
Louisiana State University	Unclear.		2017-10-19	Unspecified
Marshall University	High-risk behavior in the fraternity community.		2018-03-05	Behavior
Monmouth University	Troubles within the fraternity system.		2018-09-06	Behavior
Murray State University	The letter implementing the suspension indicates that "national trends, and our own review...".		2018-08-27	Unspecified
North Carolina State University at Raleigh	Surfaced newstory of a pledge book that featured racially insensitive remarks and rape jokes.	2018-03-20	2018-03-20	Sexual Assault
Ohio State University-Main Campus	Proactive step based on the significantly high number of investigations this semester, not on the nature of any specific case or cases.		2017-11-16	Behavior
Ohio University-Main Campus	Allegations within the past week of hazing at seven of the fraternities.		2019-10-03	Behavior
Rollins College	The temporary suspension was issued after reviewing a 'series of student conduct concerns.'		2017-02-21	Behavior
Rutgers University-New Brunswick	Several incidents with alcohol .		2015-04-06	Behavior
San Diego State University	Sexual assault allegations.		2014-11-25	Sexual Assault
San Diego State University	Ongoing concerns related to alcohol.		2018-03-09	Behavior

San Diego State University	Death of Dylan Hernandez.	2019-11-07	2019-11-09	Death
Syracuse University	A string of racist and anti-Semitic incidents.		2019-11-17	Behavior
Texas State University	Death of Matthew Ellis.	2017-11-13	2017-11-14	Death
Tufts University	Accusations of hazing and discrimination.		2016-11-16	Behavior
University at Buffalo	Death of Sebastian Serafin-Bazaan.		2019-04-12	Death
University of California-Berkeley	Reports of sexual assault at off-campus fraternity functions.		2016-10-16	Sexual Assault
University of Central Florida	Decision was made in light of drinking-related controversies.		2018-01-08	Behavior
University of Idaho	A response to the growing national crisis surrounding personal violence like hazing and sexual assault.		2017-12-12	Unspecified
University of Iowa	Death of Kamil Jackowski.	2017-04-30	2017-05-01	Death
University of Kansas	Poor behavior among some Greek groups at the University of Kansas.		2018-03-12	Behavior
University of Michigan-Ann Arbor	Claims of sexual misconduct cases involving fraternity brothers, six incidents of reported hazing, more than 30 hospital transports for students during the weekend of the football game against Michigan State.		2017-11-09	Sexual Assault
University of Missouri-Columbia	Hazing allegations.		2018-03-06	Behavior
University of New Mexico-Main Campus	With three UNM fraternities already in “emergency suspension” following allegations of hazing or alcohol policy violations, administrators have ordered a two-month halt to most social events within the university’s larger Greek system.		2017-12-08	Behavior
University of Pittsburgh	A serious alcohol incident involving members and non-members of one of the fraternities.	2018-01-18	2018-01-19	Behavior
University of Virginia-Main Campus	Rolling Stone article describing the fraternity culture at the school.	2014-11-19	2014-11-22	Sexual Assault
Washington State University	Due to the current negative reputation of the community.		2016-11-07	Unspecified
Washington State University	Death of Samuel Martinez.	2019-11-12	2019-11-14	Death
West Virginia University	Death of Nolan Burch	2014-11-12	2014-11-13	Death
West Virginia University	The result of a Theta Chi brother published a Snapchat video on social media using a racial slur directed at a bartender in a downtown Morgantown club.		2018-02-14	Behavior

Note:

Description of the triggering event is summarized based on newsarticles or conversations with Fraternity and Sorority Life staff. The date of the triggering event is shown if provided. The classification of each event is based off of the description and aligns with Figure 2.

Table E2: Moratorium Dates of Each University in the Sample

University	Start 1	End 1	Start 2	End 2	Start 3	End 3
Arkansas State University-Main Campus	2017-02-21	2017-04-01				
Ball State University	2017-10-24	2018-01-31				
California Polytechnic State University-San Luis Obispo	2015-01-13	2015-04-06	2018-04-17	2018-06-06		
Clemson University	2014-09-23	2014-10-10	2018-01-27	2018-03-01		
College of Charleston	2016-08-30	2016-12-01				
East Carolina University	2015-01-28	2015-02-11				
Emory University	2014-11-03	2014-12-02				
Florida Atlantic University	2017-11-28	2018-03-01				
Florida International University	2018-01-01	2018-02-05				
Florida State University	2017-11-06	2018-03-26				
Indiana University-Bloomington	2017-11-27	2018-02-28				
Louisiana State University and Agricultural & Mechanical College	2017-09-14	2017-10-12	2017-10-19	2018-03-01		
Marshall University	2018-03-05	2018-03-26				
Monmouth University	2018-09-06	2019-01-16				
Murray State University	2018-05-09	2018-08-27				
North Carolina State University at Raleigh	2015-03-20	2015-05-09				
Ohio State University-Main Campus	2017-11-16	2018-02-07				
Ohio University-Main Campus	2019-10-03	2019-10-25				
Rollins College	2017-02-21	2017-04-14				
Rutgers University-New Brunswick	2015-04-06	2015-05-01				
San Diego State University	2014-11-25	2015-01-09	2018-03-09	2018-10-04	2019-11-09	2020-01-17
Syracuse University	2019-11-17	2019-12-09				
Texas State University	2017-11-14	2018-02-26				
Tufts University	2016-11-16	2017-01-19				
University at Buffalo	2019-04-12	2019-08-21				
University of California-Berkeley	2016-10-16	2016-10-26				
University of Central Florida	2018-01-08	2018-03-05				
University of Idaho	2017-12-12	2018-03-13				
University of Iowa	2017-05-01	2019-08-27				
University of Kansas	2018-03-12	2018-03-18				
University of Michigan-Ann Arbor	2017-11-09	2018-01-03				
University of Missouri-Columbia	2018-03-06	2018-03-13				
University of New Mexico-Main Campus	2017-12-08	2018-02-19				
University of Pittsburgh-Pittsburgh Campus	2018-01-19	2018-08-30				
University of Virginia-Main Campus	2014-11-22	2015-01-07				
Washington State University	2016-11-07	2017-01-09	2019-11-14	2020-01-27		
West Virginia University	2014-11-13	2015-02-01	2018-02-14	2018-08-01		

Note:

Universities can have multiple moratoriums in the sample period. Each moratorium date was verified by either a Fraternity and Sorority Life advisor, a news article, or a public records request. However, the first San Diego State University moratorium end date could not be directly verified by either a fraternity or sorority advisor, news article, or public record request. Based on the following news article link, I am confident that the moratorium ended before the start of the 2015 semester. Link: https://newscenter.sdsu.edu/sdsu_newscenter/news_story.aspx?sid=75357

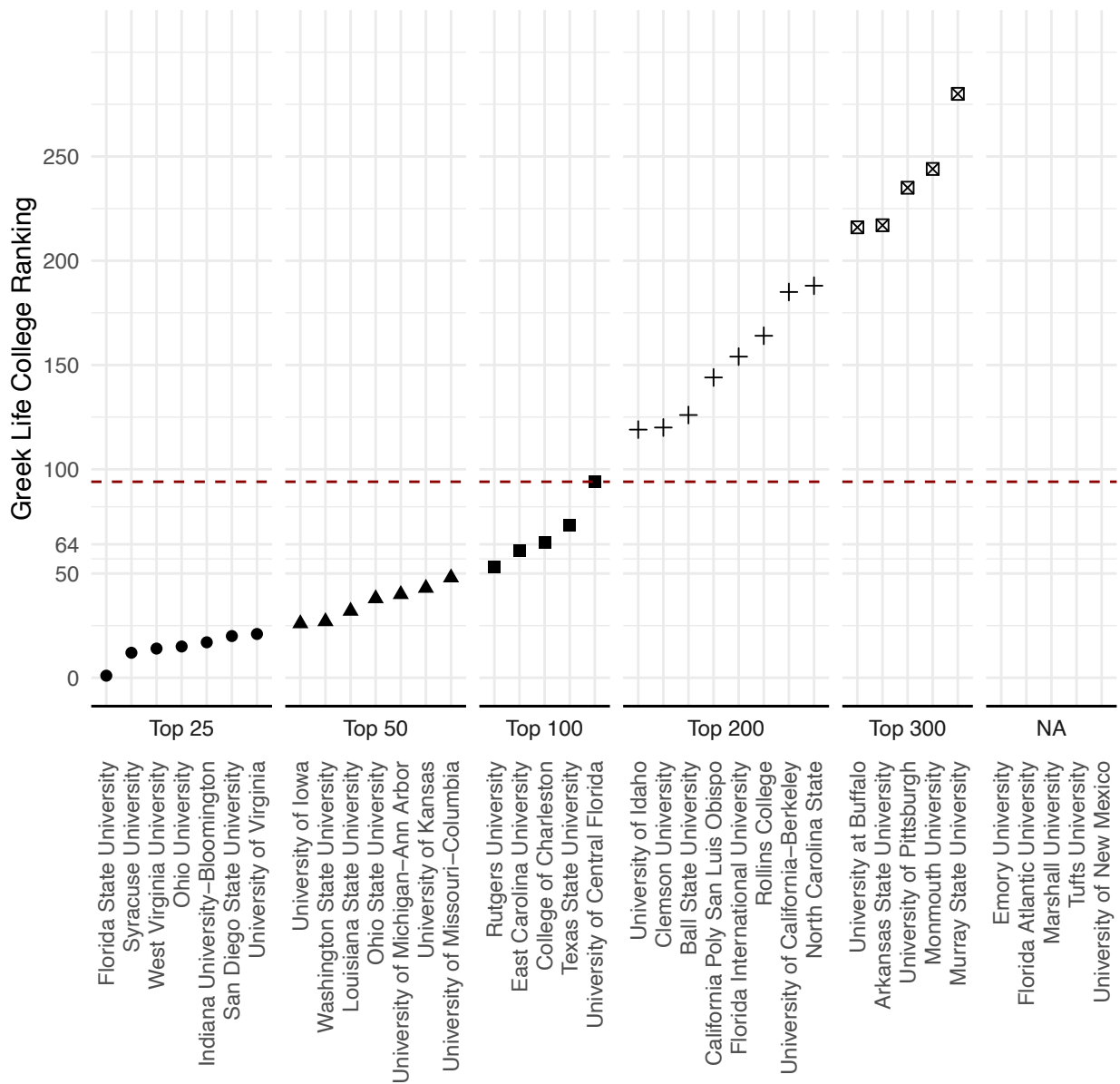


Figure E3: Greek-life Rankings of Universities Included in the Sample

Note: Greek-life rankings are based on Niche.com’s 2023 list of Colleges with the Best Greek Life. Rankings are based on survey responses from Niche.com users on the quality of Greek Life at their school. The dashed red line represents the median ranking of the 37 universities in the sample. Three-hundred universities are ranked in the list. Of the universities in the sample, 14 of the 37 universities (38%) are ranked in the top 50, while only 5 of 37 (13%) are not ranked.

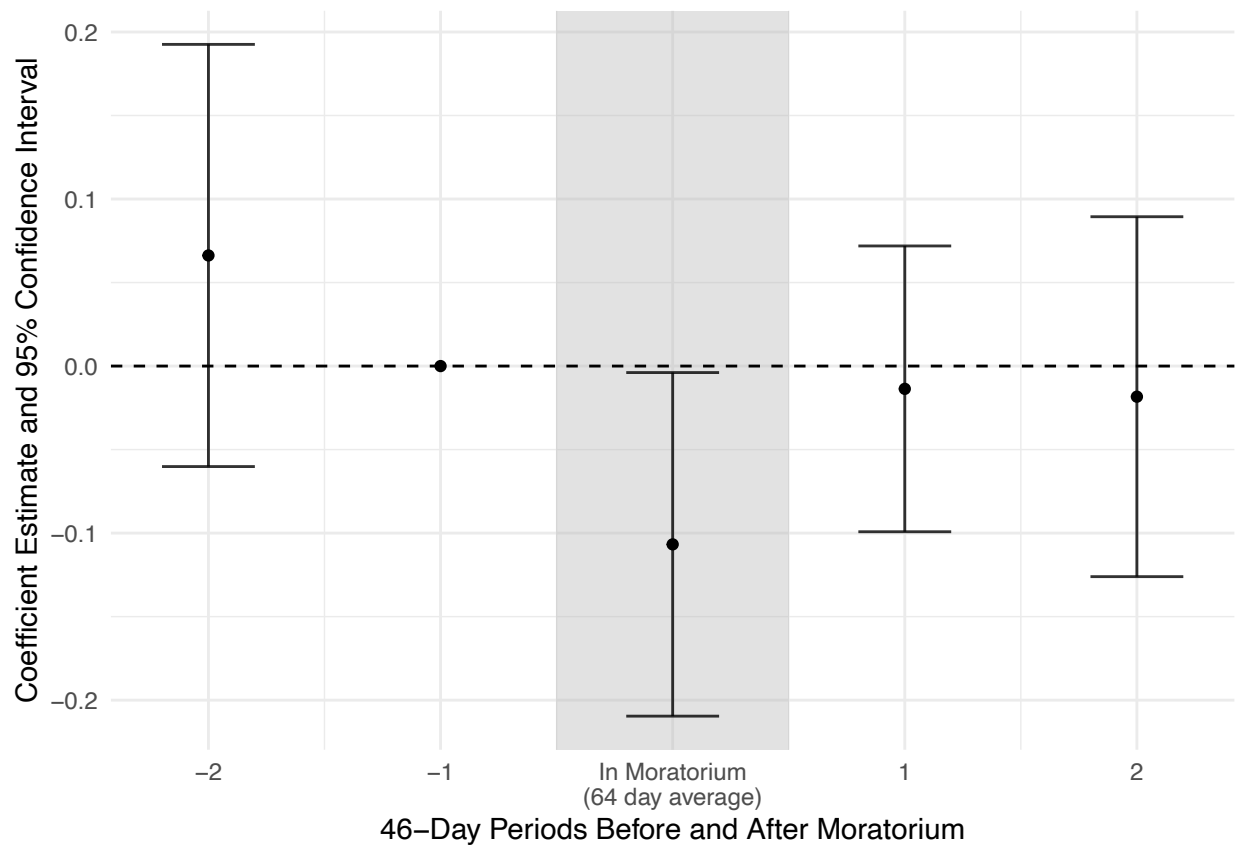


Figure E4: Event Study for Alcohol Offenses

Note: The shaded area point estimate represents an entire moratorium period for each university. Hence, the shaded area point estimate has varying amounts of days within based on the university. For instance, Arkansas State University had a 39 day moratorium and therefore their shaded area point estimate would be identified by the 39 moratorium days. Point estimates not within the shaded region are 46 day periods. Number of days within a period was chosen to give approximately two median-length (46 days) moratorium on each side of the shaded area. All periods are normalized by the 46-day period before the moratorium. Alcohol offenses are defined as alcohol offenses per-25000 enrolled students. Controls include holiday, spring semester, day of the week, football game-days, and university by academic year. Standard errors clustered by university. All errorbars represent 95% confidence intervals.

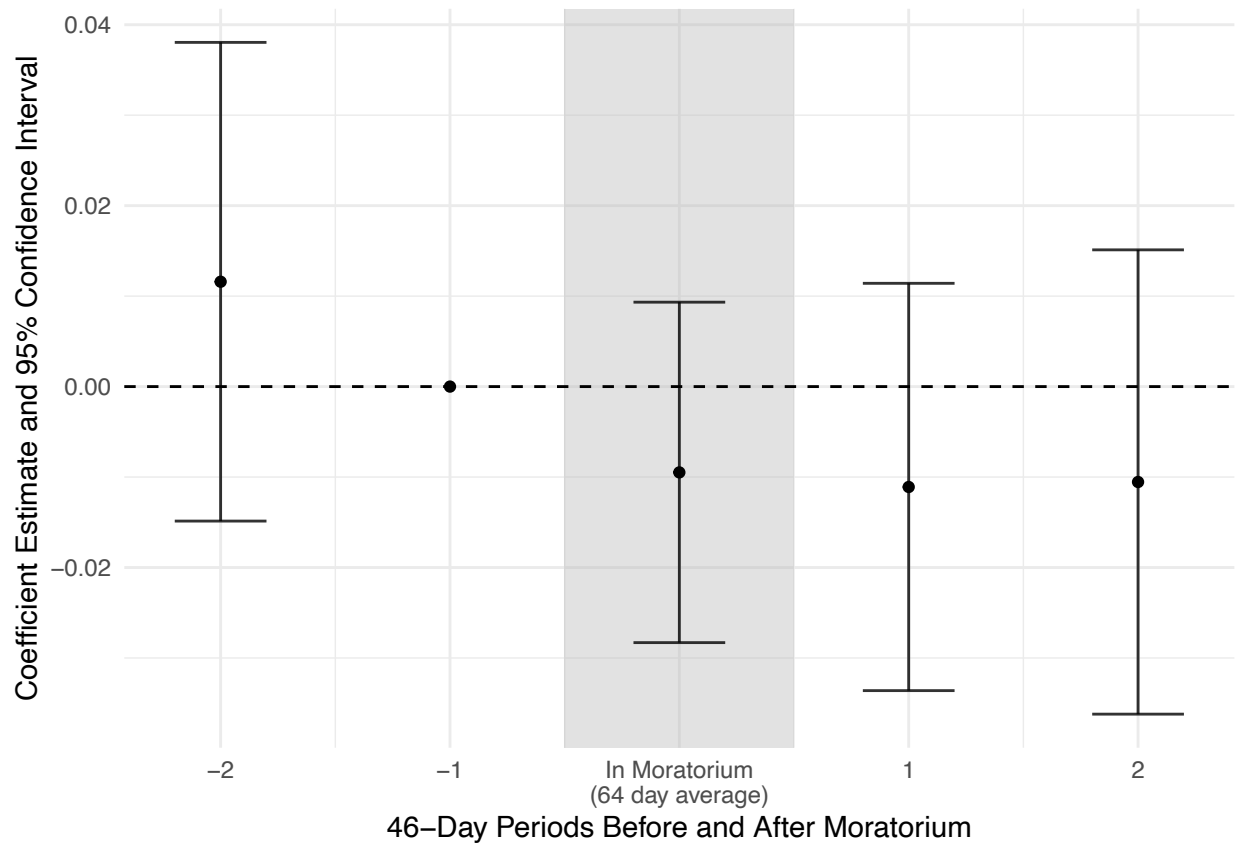


Figure E5: Event Study for Sexual Assault Offenses

Note: The shaded area point estimate represents an entire moratorium period for each university. Hence, the shaded area point estimate has varying amounts of days within based on the university. For instance, Arkansas State University had a 39 day moratorium and therefore their shaded area point estimate would be identified by the 39 moratorium days. Point estimates not within the shaded region are 46 day periods. Number of days within a period was chosen to give approximately two median-length (46 days) moratorium on each side of the shaded area. All periods are normalized by the 46-day period before the moratorium. Sexual assault offenses are defined as sexual assault offenses per-25000 enrolled students. Controls include holiday, spring semester, day of the week, football game-days, and university by academic year. Standard errors clustered by university. All errorbars represent 95% confidence intervals.

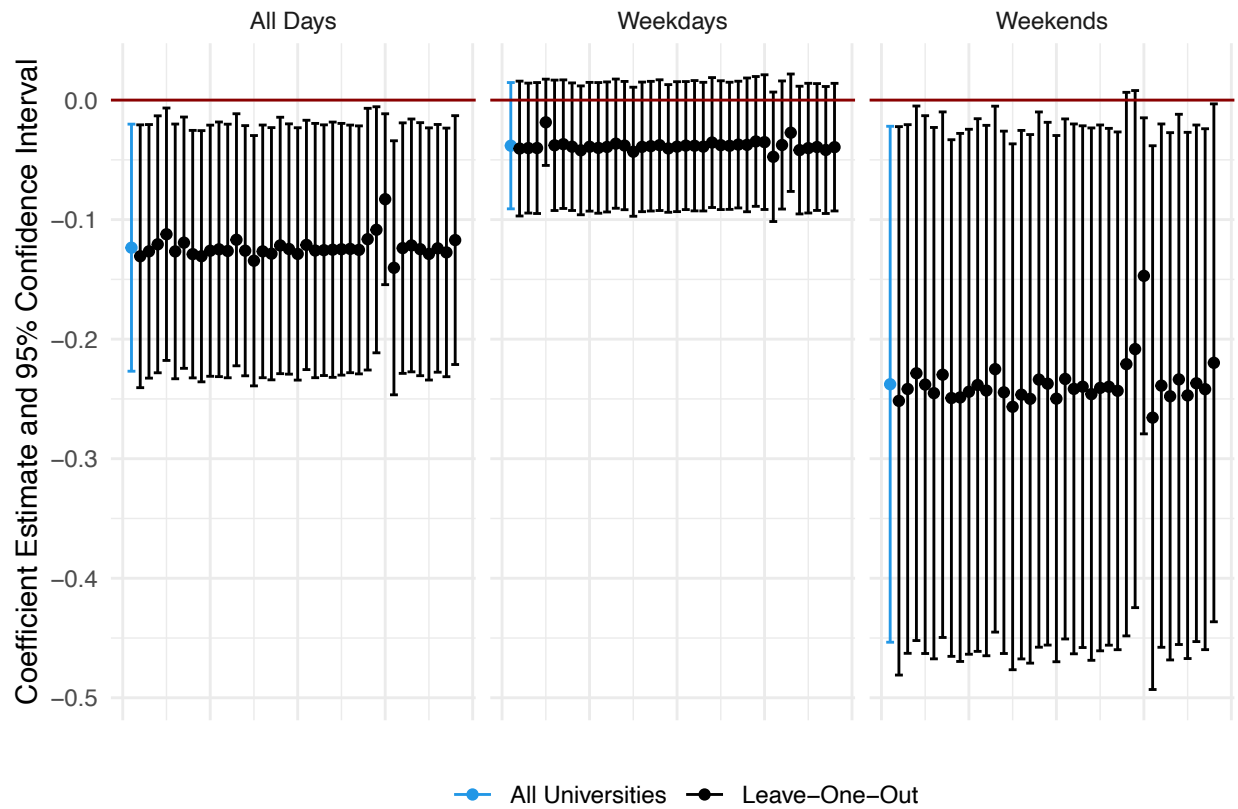


Figure E6: Leave-one-out OLS Regressions of Alcohol Offenses

Note: Each blue point represents the preferred specification (2) from Table 4. Each black point represents specification (2) from Table 4 with one university omitted from the sample. Offenses are per-25000 enrolled students. Errorbars represent 95% confidence intervals. Weekends includes only Friday, Saturday, Sunday, while weekdays includes Monday through Thursday.

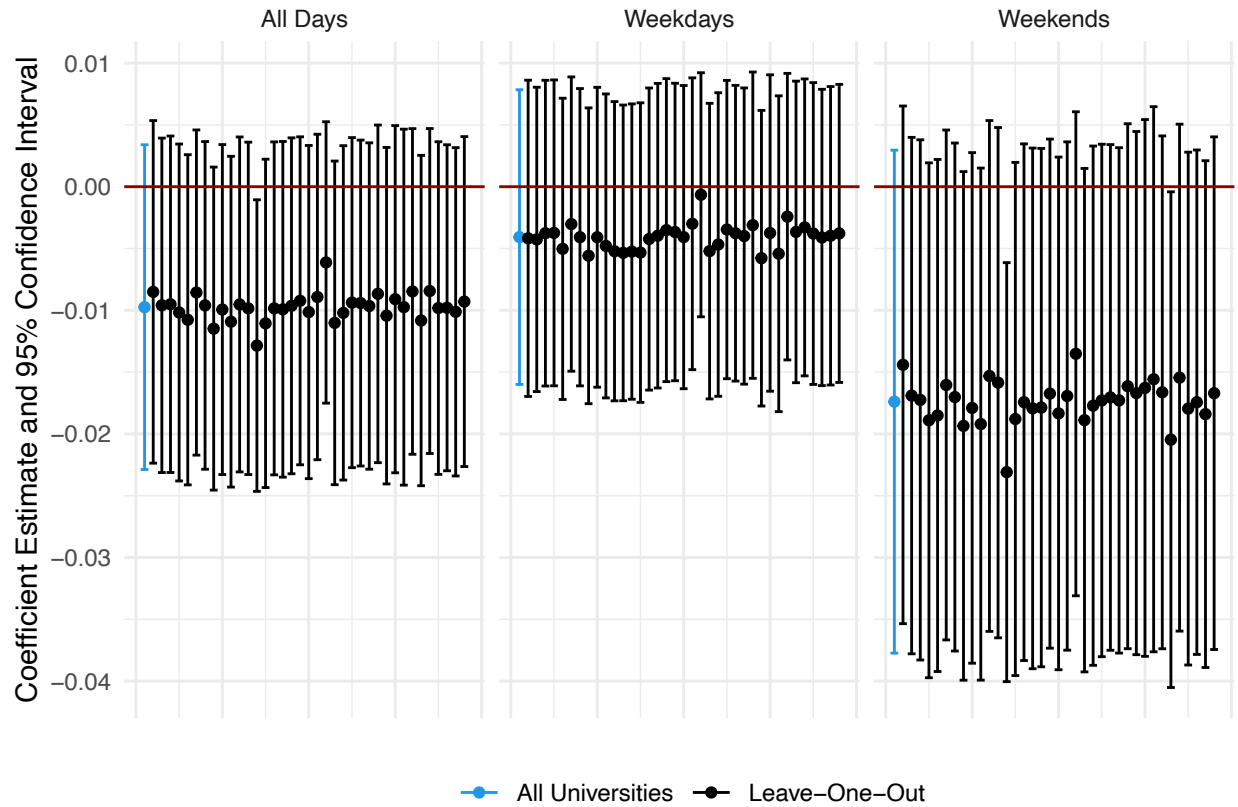


Figure E7: Leave-one-out OLS Regressions of Sexual Assaults

Note: Each blue point represents the preferred specification (2) from Table 4. Each black point represents specification (2) from Table 4 with one university omitted from the sample. Offenses are per-25000 enrolled students. Errorbars represent 95% confidence intervals. Weekends includes only Friday, Saturday, Sunday, while weekdays includes Monday through Thursday.

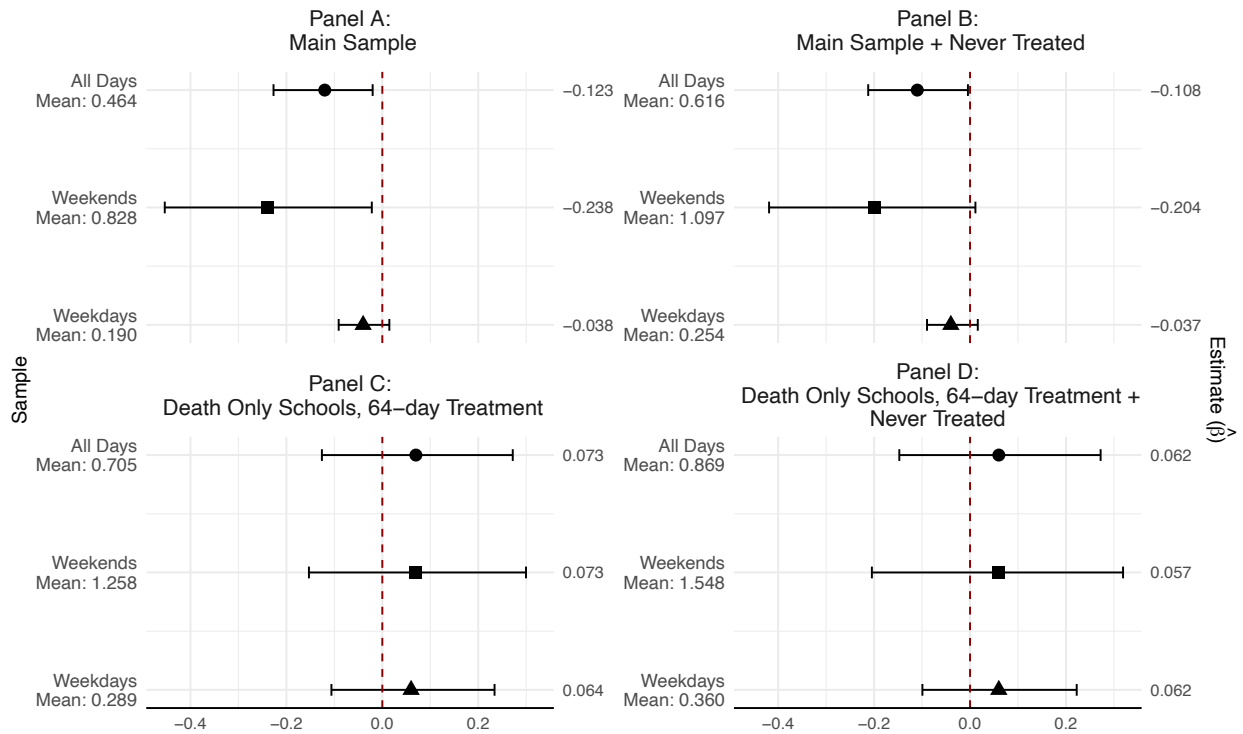


Figure E8: Robustness Across Samples (Alcohol Offenses)

Note: This graph depicts the coefficient estimates and 95% confidence intervals for different subsets of the sample. The y-axis on the left is the sample selection used, while the y-axis on the right is the point estimate. All estimates use the preferred specification from Table 4 Column 2, and all outcomes are in terms of per-25000 enrolled students. Standard errors are clustered at the university level. Panel A uses the main sample as shown in the main results, while Panel B uses the main sample in addition to 14 never-treated schools (see Section 5.A for more details). Panel C analyzes 15 universities which undergo a fraternity death, but do not undergo a moratorium. A 64-day binary treatment period is given to each of these universities, beginning on the date of the death. Panel D extends the analysis in Panel C by adding in the 15 never-treated universities as controls, analogous to Panel B in reference to Panel A. See Section 6.B for more details.

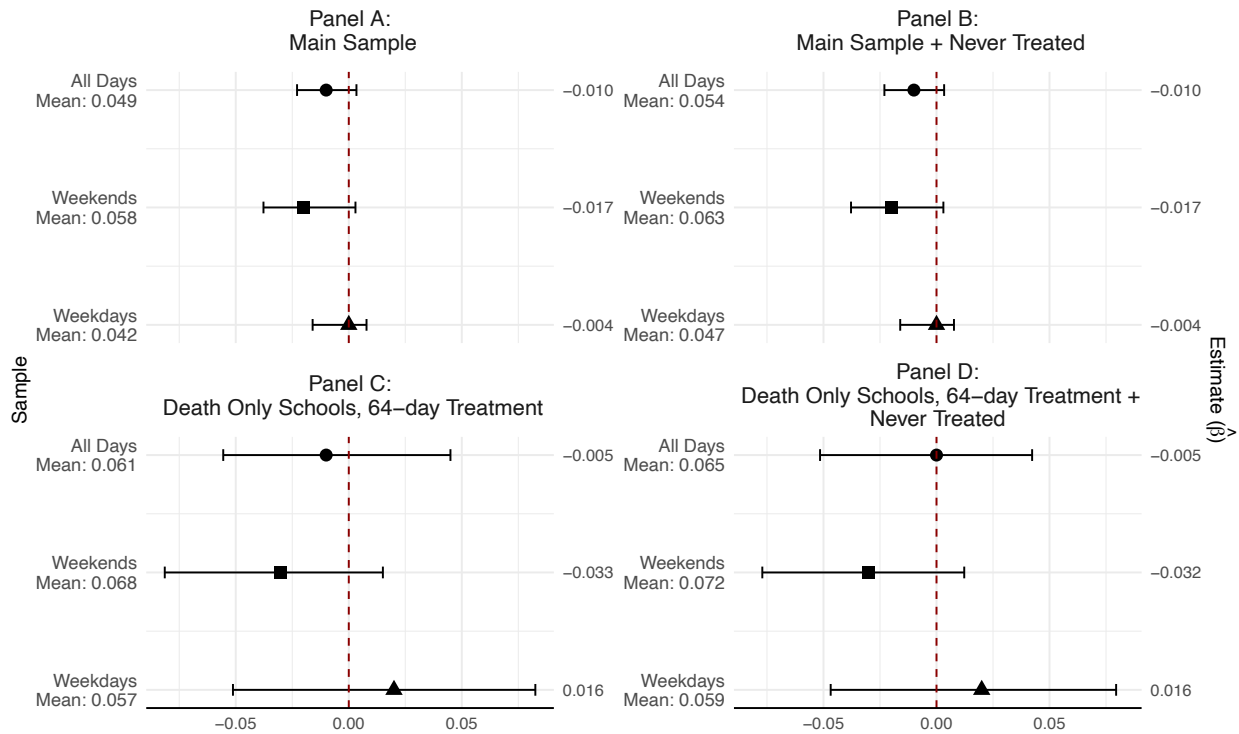


Figure E9: Robustness Across Samples (Sexual Assaults)

Note: This graph depicts the coefficient estimates and 95% confidence intervals for different subsets of the sample. The y-axis on the left is the sample selection used, while the y-axis on the right is the point estimate. All estimates use the preferred specification from Table 4 Column 2, and all outcomes are in terms of per-25000 enrolled students. Standard errors are clustered at the university level. Panel A uses the main sample as shown in the main results, while Panel B uses the main sample in addition to 14 never-treated schools (see Section 5.A for more details). Panel C analyzes 15 universities which undergo a fraternity death, but do not undergo a moratorium. A 64-day binary treatment period is given to each of these universities, beginning on the date of the death. Panel D extends the analysis in Panel C by adding in the 15 never-treated universities as controls, analogous to Panel B in reference to Panel A. See Section 6.B for more details.

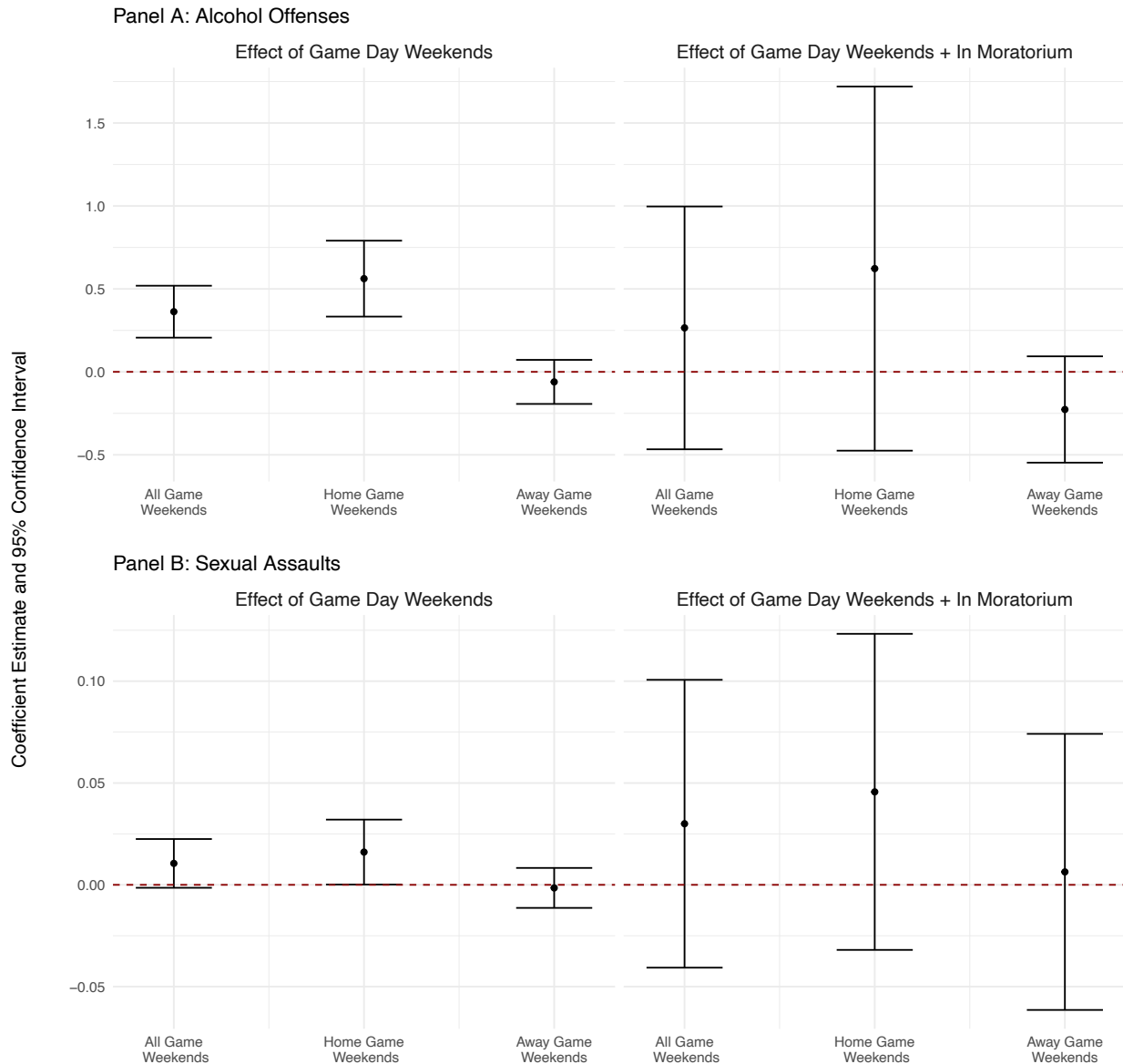


Figure E10: The Effect of Football Game-day Weekends With/Without Moratoriums
Note: Game weekends include all football games occurring in the sample period. 34 of the 37 universities have football teams and corresponding game days. The y-axis represents coefficient estimates. Errorbars represent 95% confidence intervals. Each panel is split into two effects: the first effect being the effect of only football game-day weekends on the outcome per-25000 enrolled students, and the second being the effect of a football game-day weekend that occurs within a moratorium. A game-day weekend is defined as a weekend in which a football game occurs. For example, if a game occurs on a Friday, then Saturday and Sunday will be included in the game weekend. Note that weekends are defined as Friday/Saturday/Sunday. "All Game Weekends" includes both home and away games. The effects of game-day weekends + moratorium is identified by 245 football game days that coincide with moratoriums. Controls include holiday, spring semester, day of the week, and university by academic year. Standard errors are clustered by university.

Table E3: Comparison of All Relevant Data Sources

	Data Source			
	Daily Crime Logs	CSS	NIBRS	UCR
<i>Source and Requirement:</i>				
Source of Data:	University police departments	US Department of Education	FBI	FBI
Reporting Mandate:	By-law	By-law	Voluntary	Voluntary
<i>Aggregation and Consistency:</i>				
Level of Aggregation:	Incident-level	Yearly	Incident-level	Monthly
Fraction Reporting Consistently:	1.00	1.00	0.24	0.78
<i>Offenses Reported and Location:</i>				
Alcohol Violations:	All incidences reported to or by the university police.	All incidences reported to or by any university entity.	Arrests only	None
Sexual Assaults:	All incidences reported	All incidences reported	All incidences reported	Hierarchy rule
Residence Hall Information:	No	Yes	No	No
Analysis in Paper:	Main analysis	Substitution of partying	Spillovers of partying	Not used

Note:

Appreviations of the data sources are as follows: Campus Safety Security (CSS), National Incidence-based Reporting System (NIBRS), Uniform Crime Report (UCR). The Daily Crime Logs are used for the main analysis due to the advantages it has over the other sources. The fraction reporting consistently refers row corresponds to the fraction of the sample university police departments. For the NIBRS however, the fraction reported consistently refers to the number of university-specific and corresponding nearby police departments that report consistently. The hierarchy rule is a classification rule by the UCR where only the most serious crime in an incident is reported. While over 50 percent of UCR data is recorded to be reported consistently, the true percentage is difficult to know since NAs and 0s are treated as equivalent in the data.

Table E4: Effect of Moratoriums on Alcohol Offenses and Sexual Assaults (Poisson)

	(1)	(2)	(3)	Specification (2)	
				Weekends (4)	Weekdays (5)
<i>Panel A: Alcohol Offenses</i>					
In Moratorium	-0.216** (0.093)	-0.305*** (0.087)	-0.328*** (0.104)	-0.328*** (0.092)	-0.247 (0.161)
Observations	55115	54151	52541	22578	29823
Mean of Dependent Variable	0.524	0.524	0.524	0.939	0.211
<i>Panel B: Sexual Assaults</i>					
In Moratorium	-0.164** (0.076)	-0.199* (0.110)	-0.187 (0.117)	-0.388** (0.147)	-0.016 (0.141)
Observations	55115	52905	50077	21775	28003
Mean of Dependent Variable	0.051	0.051	0.051	0.062	0.043
FE: Day of Week	X	X	X	X	X
FE: Holiday	X	X	X	X	X
FE: Game Day	X	X	X	X	X
FE: Semester (Spring/Fall)	X	X	X	X	X
FE: University	X				
FE: Academic Year	X				
FE: University by Academic Year		X		X	X
FE: University by Academic Year by Semester			X		

Note:

Standard errors are clustered by university and each offense is defined as a count. Observation values may vary between specifications due to no variation with particular fixed effects. Specification (2) is the preferred specification due to the flexibility of the fixed effects and the conservativeness of the estimates in the main results. A weekend is defined as Friday-Sunday while a weekday is defined as Monday-Thursday.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table E5: Effect of Moratoriums on Alcohol Offenses and Sexual Assaults (WLS)

	(1)	(2)	(3)	Specification (2)	
				Weekends (4)	Weekdays (5)
<i>Panel A: Alcohol Offenses</i>					
In Moratorium	-0.128*** (0.046)	-0.129** (0.050)	-0.131** (0.049)	-0.243** (0.103)	-0.042 (0.030)
Observations	55115	55115	55115	23643	31472
Mean of Dependent Variable	0.464	0.464	0.464	0.828	0.190
Wild Bootstrap P-Value	0.005	0.006	0.010	0.006	0.170
<i>Panel B: Sexual Assaults</i>					
In Moratorium	-0.007* (0.004)	-0.008* (0.005)	-0.008 (0.005)	-0.019** (0.008)	0.000 (0.005)
Observations	55115	55115	55115	23643	31472
Mean of Dependent Variable	0.049	0.049	0.049	0.058	0.042
Wild Bootstrap P-Value	0.062	0.095	0.121	0.030	0.989
FE: Holiday	X	X	X	X	X
FE: Game Day	X	X	X	X	X
FE: Semester (Spring/Fall)	X	X		X	X
FE: University	X				
FE: Academic Year	X				
FE: University by Academic Year		X		X	X
FE: University by Academic Year by Semester			X		

Note:

Estimates are obtained using WLS. All regressions are weighted by total enrollment. Standard errors shown in parenthesis are clustered by university (37 clusters) and each offense is defined as per-25000 enrolled students. P-values from 1000 wild cluster bootstrap iterations are shown for the In Moratorium coefficient as suggested by Cameron, Gelbach, and Miller (2008) in cases with a small number of clusters (typically lower than 30). This analysis is near, but not below this threshold. Game Day controls consist of university football games within each university. Weekends include Friday-Sunday while Weekdays include Monday-Thursday. Column 2 is the preferred specification due to the flexibility of the fixed effects and the conservativeness of the estimates. Significance stars correspond to clustered standard errors.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$